



January 12, 2010

Dave Mehl and Gary Collord  
Energy Sector  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Re: Renewable Electricity Standard Proposal**

Dear Mr. Mehl and Mr. Collord,

These comments are offered on behalf of the Energy Producers and Users Coalition<sup>1</sup> and the Cogeneration Association of California<sup>2</sup> (EPUC/CAC). Members of these coalitions own and operate roughly 2,400 MW of existing combined heat and power (CHP) generation in California located primarily at refineries and enhanced oil recovery operations. These CHP facilities generate roughly 18 million MWh of power for the state of California.<sup>3</sup>

In November, CARB began development of a renewable electricity standard (RES) to provide the foundation for increased procurement of power from renewable resources. An increase in procurement from renewable resources is being pursued to reduce GHG emissions. The RES would be similar to the CPUC's renewable portfolio standard (RPS) in many regards, but CARB proposes to vary the renewables procurement obligation with changes in the reliance on energy efficiency (EE), distributed generation (DG), combined heat and power (CHP) in the electric sector and electric use in the transportation sector. Preliminary comments on CARB's proposal reveal that some parties oppose a reduction in RES procurement obligations as a result of CHP procurement. As noted below, however, it is appropriate to harmonize the two procurement goals as both serve to reduce emissions. To ensure an informed evaluation of RES, CARB's technical analyses should include evaluation of the CHP load variation scenario.

---

<sup>1</sup> EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LL, ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc., ConocoPhillips Company, Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc.

<sup>2</sup> CAC represents the combined heat and power and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company

<sup>3</sup> CEC 2009 Integrated Energy Policy Report, at 93.



***CARB's CHP Load Variation Proposal Appropriately Harmonizes the Scoping Plan Measures to Ensure a Multi-Pronged Approach Reduces the State's GHG Emissions***

CARB's load variation proposal would effectively harmonize the state's two key tools in the AB 32 effort: renewables and CHP. It would avoid a regulatory scheme that could otherwise minimize the Scoping Plan's CHP goal. By requiring consideration of CHP expansion in developing a framework to increase procurement of renewable resources, the load variation mechanism appropriately ensures the state's ability to pursue a layered, multi-pronged approach to securing GHG reductions.

It is critical that efforts to promote renewables do not minimize the Scoping Plan's CHP objective. As the CEC has noted, increasing reliance on renewable resources procurement to 33% can have significant impacts on the demand for natural gas resources.<sup>4</sup> In particular, it can increase the need for peaking resources to firm intermittent renewable power and decrease reliance on baseload resources. Consideration of increases in renewable procurement alone could crowd out emissions reductions from CHP resources. CHP is the most efficient form of distributed generation and capable of generating 6.7 MMTCO<sub>2</sub>e in emission reductions.<sup>5</sup> Failure to integrate the Scoping Plan objectives risks the intended result of the Scoping Plan's layered approach to increase reliance on both renewables and CHP.

The CHP load variation scenario should also not be overlooked solely because CHP is associated with emissions. Such arguments overlook the emissions associated with firming power. Given the reliance by intermittent resources on firming power, it would be inappropriate for CARB to exclude the CHP load variation evaluation solely on the grounds that CHP is associated with operational emissions. Stated differently, it would be a mistake to promote the increased procurement of renewables to the exclusion of CHP, particularly when the emissions of CHP may be comparable with certain renewable resources when considered together with the emissions of their firming resources.

***CARB's Technical Analyses Must Consider the CHP Load Variation Option to Allow an Informed Evaluation of the RES Proposal***

CARB's RES analyses must consider the CHP load variation option. As CARB noted at its December 14<sup>th</sup> workshop, it plans to undertake an environmental, economic and technical feasibility analysis. In addition, CAISO is in the process of evaluating the operational impacts of achieving 33% RES. To allow informed consideration of RES emission impacts as well as the impacts of the RES on other Scoping Plan measures such as CHP, all load variation scenarios must be examined in each form of technical

---

<sup>4</sup> Impact of Assembly Bill 32 Scoping Plan Electricity Resource Goals on New Natural Gas Generation, at 24.

<sup>5</sup> CEC 2009 Integrated Energy Policy Report, at 92; CARB Scoping Plan, at 43-44, Appendix Volume I, at C-122-C-126.



analysis. Leaving any of the load variation scenarios out of the economic, technical feasibility, environmental or CAISO operational analyses would leave important questions about the integration of renewables and CHP unanswered and open to challenge.

It is also important to evaluate the CHP load variation option correctly. The CHP load variation scenario will vary depending on the metric used to evaluate RES compliance. If CARB chooses to measure RES compliance based on 33% retail load as measured by MWh, the MWh of CHP procured by load serving entities (LSEs) could decrease the MWh of power that utilities would have to secure from renewable resources. For example, if CHP load variation is not allowed and total system load was 14,000,000 MWh. The RES would obligate load-serving entities to secure 4,620,000 MWh of renewable power

Retail Load: 14,000,000 MWh  
RES Procurement:  $14,000,000 \text{ MWh} \times .33 = 4,620,000 \text{ MWh}$   
CHP Procurement = 1,500,000 MWh

If CHP load variation is considered, CHP power sold to LSEs would offset the calculation of RES load. Note that CHP power used to serve behind-the-meter load already decreases the calculation of LSE load. As detailed below, if RES compliance is measured in MWh, every 3 MWh from CHP would decrease procurement of renewables by 1 MWh:

Retail Load: 14,000,000 MWh  
CHP Procurement = 1,500,000 MWh  
RES Procurement:  $(14,000,000 \text{ MWh} - 1,500,000) \times .33 = 4,125,000 \text{ MWh}$

If RES compliance is measured in  $\text{MTCO}_2\text{e}$ , it makes sense to offset the emissions target associated with renewables procurement with the GHG emission savings of CHP power sold to LSEs. CARB's Scoping Plan estimates that increasing reliance on renewable resources will create 21.3  $\text{MTCO}_2\text{e}$  of emissions savings. CARB could, for example, rely on a double benchmark to calculate the  $\text{MTCO}_2\text{e}$  of GHG reductions generated by CHP:

Scoping Plan RES Procurement Savings: 21.3  $\text{MTCO}_2\text{e}$   
CHP Savings: (Emissions associated with double benchmark)  
                  – (Actual CHP emissions)  
RES Procurement Target:  $21.3 \text{ MTCO}_2\text{e} - (\text{CHP Savings})$



We are available to discuss these and other CHP issues at your request.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Seema Srinivasan', written in a cursive style.

Seema Srinivasan